

## **REMARKS/ARGUMENTS**

Claims 1-14 are pending in the present application. Claims 1-2, 5-6, 10, and 14 have been amended; claim 3 has been canceled; and claims 15-20 have been added. Support for the amendments and the new claims can be found at least in the original claims, and in the specification on page 8, line 22-25, page 9, lines 6-9, page 11, lines 21-23. Reconsideration of the claims is respectfully requested.

### **I. Examiner Interview Summary**

Applicant thanks Examiner Timothy M. Bonura for all the courtesies extended Applicant's representative during the December 1, 2006 telephone interview. During the interview, Applicant's representative discussed the *McAfee* reference and the manner in which *McAfee* fails to teach or disclose the features recited in the presently claimed invention in independent claim 1. No agreement was reached as to the allowability of the claims. The arguments discussed as well as additional reasons that the claims are not anticipated are set forth in the remarks below.

### **II. 35 U.S.C. § 102, Anticipation**

The Examiner has rejected claims 1-2 and 4-14 under 35 U.S.C. § 102 as anticipated by *McAfee et al., Method and Apparatus for Recovering From a Failed I/O Controller in An Information Handling System*, U.S. Patent Pub. No. 2004/0148542 (July 29, 2004) (hereinafter "*McAfee*"). This rejection is respectfully traversed. Regarding claim 1, the Examiner asserts the following:

Regarding claim 1:

- a. Regarding the limitation of "identifying failed hardware," *McAfee* discloses a system with an I/O controller that suffers a failure. (Paragraph 0023).
- b. Regarding the limitation of "identifying hardware affected by the failed hardware," *McAfee* discloses a system with an I/O bus controller failure that is identified as failed. (Paragraph 0023).
- c. Regarding the limitation of "rebooting the computer system without running a diagnostic on the failed hardware," *McAfee* discloses a system that is configured to reboot the computer system upon detection of an I/O controller. (Paragraph 0023).

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A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582,

32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

*McAfee* does not anticipate claim 1 because *McAfee* does not teach all of the features of claim 1.

Claim 1 is as follows:

A method of processing errors in a computer system, having at least one processor, memory, and a bus coupled between the memory and the processor, comprising:  
identifying, by a service processor, failed hardware of the computer system;  
identifying, by the service processor, other hardware affected by the failed hardware within the computer system;  
deconfiguring the failed hardware and the other hardware affected by the failed hardware; and  
rebooting the computer system without running a diagnostic on the failed hardware.

The Examiner asserts otherwise, citing *McAfee*, paragraph 0023. Paragraph 0023 of *McAfee* is as follows:

According to one embodiment, the BIOS and/or firmware of the information handling system is configured to reboot the system in response to a failure of an I/O controller. Rebooting of the system causes a power on self test (POST) to be executed. The POST includes executable instructions for an implementing an auto-bus scan. The auto-bus scan scans the I/O buses and switches for learning all permutations of failures and storing the learned permutations in a register. For example, the auto-bus scan may determine that there are two I/O controllers, one controller having one device at 100 MHz and the other controller having four devices at 66 MHz. If the POST routine detects and/or witnesses a failure, then the POST routine executes a particular permutation to recover from the I/O failure in response to a specific occurrence of an I/O controller failure. In particular, the POST instructs the switches to open/close, for example, via a GPIO output or PLD output, as required for the recovery from a given I/O failure, further as discussed herein with respect to FIGS. 3-5.

*McAfee*, paragraph 0023.

The Examiner is mistaken that *McAfee* anticipates claim 1 because *McAfee* does not teach several features of claim 1. Specifically, *McAfee* does not identifying hardware *affected by the failed hardware*. Additionally, *McAfee* does not teach rebooting the computer system *without running a diagnostic on the failed hardware*.

*McAfee* does not teach identifying hardware *affected by the failed hardware*. The above section of *McAfee* teaches a system response to a failure of an I/O controller. In response to an I/O controller failure, the system reboots and performs a power on self test (POST). The purpose of the power on self

test is to detect and/or witness the failure and then the POST routine executes a particular permutation to recover from the I/O failure. In particular, the POST instructs the switches to open/close as required for the recovery from a given I/O failure. In other words, the power on self test tries to detect the I/O controller failure and work around it by instructing certain switches to open and/or close. *See McAfee*, Figure 4. The power on self test does not detect other hardware *affected by the failed I/O controller*. Consequently, neither this section nor any other sections of *McAfee* teach identifying hardware *affected by the failed hardware*.

Additionally, *McAfee* does not teach rebooting the computer system *without running a diagnostic on the failed hardware*. As stated by the above portion of *McAfee*, rebooting of the system causes a power on self test (POST) to be executed. The POST includes executable instructions for implementing an auto-bus scan. The auto-bus scan scans the I/O buses and switches *for learning all permutations of failures* and storing the learned permutations in a register. *McAfee* clearly teaches a system that performs a diagnostic test on the failed hardware upon rebooting the computer system. Therefore, the Examiner's assertion to the contrary is erroneous. Consequently, *McAfee* does not teach rebooting the computer system *without running a diagnostic on the failed hardware* as recited in claim 1. Accordingly, *McAfee* does not disclose all the features as recited in claim 1, and does not anticipate claim 1.

Because claims 6 and 10 recite similar features as recited in claim 1, the same distinctions vis-à-vis *McAfee* and claim 1 apply to claims 6 and 10. Consequently, *McAfee* also does not anticipate claims 6 and 10.

Additionally, because claims 2, 4-5, 7-9 and 11-14 depend from either claim 1, 6, or 10, the same distinctions between *McAfee* vis-à-vis claim 1, 6, or 10 apply to claims 2, 4-5, 7-9, and 11-14. As a result, *McAfee* also does not anticipate the preceding claims.

Furthermore, *McAfee* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. The present invention solves the problem of a lengthy recovery time after a system reboot from a hardware failure by identifying the failed hardware and other hardware affected by the failed hardware, and fencing off those errors from the system configuration. Therefore, a system reboot recovery after an error will not require a thorough diagnostic testing of the system hardware according to the claimed invention.

In contrast, *McAfee* teaches a thorough diagnostic testing of the system hardware after a system reboot recovery from an error because *McAfee* looks to provide a solution to work around the failed hardware. Implementing *McAfee* with the feature "rebooting the computer system *without running a diagnostic on the failed hardware*" as recited in claim 1 would be contrary to *McAfee*'s intended purpose. Absent the Examiner pointing out some teaching or incentive to implement *McAfee* with features similar to those recited in claim 1, one of ordinary skill in the art would not be led to modify *McAfee* to reach the

present invention when the reference is considered as a whole. Absent some teaching, suggestion, or incentive to modify *McAfee* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using Applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

**III. 35 U.S.C. § 112**

In regards to claim 3, the Examiner states the following:

Claim 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the limitation "first diagnostic" in the claim. There is insufficient antecedent basis for this limitation in the claim.

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Applicants have canceled claim 3, and therefore, the Examiner's rejection of this claim is moot.

**IV. Conclusion**

Applicants respectfully urged that the subject application is patentable over *McAfee* and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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